### RAW SEQUENCE LISTING PATENT APPLICATION US/08/404,832

DATE: 04/05/95 TIME: 10:08:49

INPUT SET: S3120.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

```
SEQUENCE LISTING
 2
 3
            General Information:
     (1)
 4
 5
          (i) APPLICANT: DIXIT, VISHA M.
 6
 7
         (ii) TITLE OF INVENTION: CD40 BINDING COMPOSITIONS AND METHODS OF
 8
                 USING SAME
 9
        (iii) NUMBER OF SEQUENCES: 12
10
11
12
         (iv) CORRESPONDENCE ADDRESS:
13
               (A) ADDRESSEE: MORRISON & FOERSTER
               (B) STREET: 755 Page Mill Road
14
15
               (C) CITY: Palo Alto
16
               (D) STATE: California
17
               (E) COUNTRY: USA
18
               (F) ZIP: 94304-1018
19
20
          (V) COMPUTER READABLE FORM:
21
               (A) MEDIUM TYPE: Floppy disk
22
               (B) COMPUTER: IBM PC compatible
23
               (C) OPERATING SYSTEM: PC-DOS/MS-DOS
               (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
24
25
         (vi) CURRENT APPLICATION DATA:
26
               (A) APPLICATION NUMBER: US
27
28
               (B) FILING DATE:
29
               (C) CLASSIFICATION:
30
31
       (viii) ATTORNEY/AGENT INFORMATION:
32
               (A) NAME: KONSKI, ANTOINETTE F.
               (B) REGISTRATION NUMBER: 34,202
33
34
               (C) REFERENCE/DOCKET NUMBER: 203442102500
35
36
         (ix) TELECOMMUNICATION INFORMATION:
37
               (A) TELEPHONE: (415) 813-5600
               (B) TELEFAX: (415) 494-0792
38
               (C) TELEX: 706141
39
40
41
     (2) INFORMATION FOR SEQ ID NO:1:
42
43
44
          (i) SEQUENCE CHARACTERISTICS:
               (A) LENGTH: 2339 base pairs
45
46
               (B) TYPE: nucleic acid
```

## RAW SEQUENCE LISTING PATENT APPLICATION US/08/404,832

DATE: 04/05/95 TIME: 10:08:54

INPUT SET: S3120.raw

|    | INPUT SET: S312   | 0.raw |
|----|---|-------|
| 47 | (C) STRANDEDNESS: single  |       |
| 48 | (D) TOPOLOGY: linear  |       |
| 49 |   |       |
| 50 |   |       |
| 51 |   |       |
| 52 | (ix) FEATURE:   |       |
| 53 | (A) NAME/KEY: CDS   |       |
| 54 | • •   |       |
|    | (B) LOCATION: 2111911   |       |
| 55 |   |       |
| 56 |   |       |
| 57 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:                           |       |
| 58 |   |       |
| 59 | ACGAAGGCCA CGCGCCGGC GCCCTGAGC CGGCCGAGCG GCGACGGACC GCGAGATGAG   | 60    |
| 60 |   |       |
| 61 | GAAAATGAGG CCCAAAGAAG TGATGCCACT TGGTTAAGGT CCCAGAGCAG GTCAGAATCA | 120   |
| 62 |   |       |
| 63 | GACCTAGGAT CAGAAACCTG GCTCCTGGCT CCTGCTCCCT ACTCTTCTAA GGATCGCTGT | 180   |
| 64 |   |       |
| 65 | CCTGACAGAA GAGAACTCCT CTTTCCTAAA ATG GAG TCG AGT AAA AAG ATG GAC  | 234   |
| 66 | Met Glu Ser Ser Lys Lys Met Asp                                   |       |
| 67 | 1 5   |       |
| 68 | •   |       |
| 69 | TCT CCT GGC GCG CTG CAG ACT AAC CCG CCG CTA AAG CTG CAC ACT GAC   | 282   |
|    |   | 202   |
| 70 | Ser Pro Gly Ala Leu Gln Thr Asn Pro Pro Leu Lys Leu His Thr Asp   |       |
| 71 | 10 15 20  |       |
| 72 |   |       |
| 73 | CGC AGT GCT GGG ACG CCA GTT TTT GTC CCT GAA CAA GGA GGT TAC AAG   | 330   |
| 74 | Arg Ser Ala Gly Thr Pro Val Phe Val Pro Glu Gln Gly Gly Tyr Lys   |       |
| 75 | 25 30 35 40   |       |
| 76 |   |       |
| 77 | GAA AAG TTT GTG AAG ACC GTG GAG GAC AAG TAC AAG TGT GAG AAG TGC   | 378   |
| 78 | Glu Lys Phe Val Lys Thr Val Glu Asp Lys Tyr Lys Cys Glu Lys Cys   |       |
| 79 | 45 50 55  |       |
| 80 |   |       |
| 81 | CAC CTG GTG CTG TGC AGC CCG AAG CAG ACC GAG TGT GGG CAC CGC TTC   | 426   |
| 82 | His Leu Val Leu Cys Ser Pro Lys Gln Thr Glu Cys Gly His Arg Phe   |       |
| 83 | 60 65 70  |       |
| 84 |   |       |
|    | TGC GAG AGC TGC ATG GCG GCC CTG CTG AGC TCT TCA AGT CCA AAA TGT   | 474   |
| 85 |   | 4/4   |
| 86 | Cys Glu Ser Cys Met Ala Ala Leu Leu Ser Ser Ser Pro Lys Cys       |       |
| 87 | 75 80 85  |       |
| 88 |   |       |
| 89 | ACA GCG TGT CAA GAG AGC ATC GTT AAA GAT AAG GTG TTT AAG GAT AAT   | 522   |
| 90 | Thr Ala Cys Gln Glu Ser Ile Val Lys Asp Lys Val Phe Lys Asp Asn   |       |
| 91 | 90 95 100   |       |
| 92 |   |       |
| 93 | TGC TGC AAG AGA GAA ATT CTG GCT CTT CAG ATC TAT TGT CGG AAT GAA   | 570   |
| 94 | Cys Cys Lys Arg Glu Ile Leu Ala Leu Gln Ile Tyr Cys Arg Asn Glu   |       |
| 95 | 105 110 115 120   |       |
| 96 |   |       |
| 97 | AGC AGA GGT TGT GCA GAG CAG TTA ATG CTG GGA CAT CTG GTG CAT TTA   | 618   |
| 98 | Ser Arg Gly Cys Ala Glu Gln Leu Met Leu Gly His Leu Val His Leu   |       |
| 99 | 125 130 135   |       |
|    |   |       |

## RAW SEQUENCE LISTING PATENT APPLICATION US/08/404,832

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#### INPUT SET: S3120.raw

| 100        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
|------------|-------|--------------|-------|------|-------|------------|-------|---------|------|------|------|-----|------|---------|-----|------|------|
| 101        |       |              |       |      |       | TTT        |       |         |      |      |      |     |      |         |     |      | 666  |
| 102        | Lys   | Asn          | Asp   | _    | His   | Phe        | GLu   | GLu     |      | Pro  | Cys  | Val | Arg  |         | Asp | Cys  |      |
| 103        |       |              |       | 140  |       |            |       |         | 145  |      |      |     |      | 150     |     |      |      |
| 104<br>105 |       | <b>CIA</b> A | 220   | ama  | mma   | AGG        | * * * | a a a   | аша  | aa x | ana  | 030 | аша  | ava     | 220 | aaa  | 714  |
| 105        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      | /14  |
| 107        | гуз   | GIU          | 155   | vaı  | neu   | Arg        | гуъ   | 160     | ьец  | Arg  | ASP  | птэ | 165  | GIU     | цур | ATG  |      |
| 107        |       |              | 133   |      |       |            |       | 100     |      |      |      |     | 103  |         |     |      |      |
| 100        | ጥርጥ   | ΔΔΔ          | ሞልሮ   | caa  | CAA   | GCC        | ልሮል   | TCC     | AGC  | CAC  | TCC  | λλC | λст  | CAG     | СФФ | CCG  | 762  |
| 110        |       |              |       |      |       | Ala        |       |         |      |      |      |     |      |         |     |      | 702  |
| 111        | O J D | 170          | - 7 - | 9    |       |            | 175   | 0,5     | -    | **** | 0,0  | 180 |      | <b></b> |     |      |      |
| 112        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
| 113        | ATG   | ATC          | GCG   | CTG  | CAG   | AAA        | CAC   | GAA     | GAC  | ACC  | GAC  | TGT | CCC  | TGC     | GTG | GTG  | 810  |
| 114        |       |              |       |      |       | Lys        |       |         |      |      |      |     |      |         |     |      |      |
| 115        | 185   |              |       |      |       | 190        |       |         |      |      | 195  | •   |      | •       |     | 200  |      |
| 116        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
| 117        | GTG   | TCC          | TGC   | CCT  | CAC   | AAG        | TGC   | AGC     | GTC  | CAG  | ACT  | CTC | CTG  | AGG     | AGC | GAG  | 858  |
| 118        | Val   | Ser          | Cys   | Pro  | His   | Lys        | Cys   | Ser     | Val  | Gln  | Thr  | Leu | Leu  | Arg     | Ser | Glu  |      |
| 119        |       |              |       |      | 205   |            |       |         |      | 210  |      |     |      |         | 215 |      |      |
| 120        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
| 121        |       |              |       |      |       | TCA        |       |         |      |      |      |     |      |         |     |      | 906  |
| 122        | Leu   | Ser          | Ala   | His  | Leu   | Ser        | Glu   | Cys     | Val  | Asn  | Ala  | Pro | Ser  |         | Cys | Ser  |      |
| 123        |       |              |       | 220  |       |            |       |         | 225  |      |      |     |      | 230     |     |      |      |
| 124        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
| 125        |       |              |       |      |       | TGC        |       |         |      |      |      |     |      |         |     |      | 954  |
| 126        | Phe   | Lys          | _     | Tyr  | GTÄ   | Cys        | vaı   |         | GIN  | GTÀ  | Thr  | Asn |      | GIN     | тте | Lys  |      |
| 127        |       |              | 235   |      |       |            |       | 240     |      |      |      |     | 245  |         |     |      |      |
| 128<br>129 | 000   | ava          | a 2 a | 000  | N C C | maa        | aaa   | ama.    | ara  | ana  | ama  | 220 | ama  | аша     | 220 | asa. | 1002 |
| 130        |       |              |       |      |       | TCC<br>Ser |       |         |      |      |      |     |      |         |     |      | 1002 |
| 131        | АТА   | 250          | GIU   | АТА  | Ser   | Ser        | 255   | vaı     | GIII | птэ  | vaı  | 260 | Leu  | ьец     | гуз | GIU  |      |
| 132        |       | 230          |       |      |       |            | 233   |         |      |      |      | 200 |      |         |     |      |      |
| 133        | TGG   | AGC          | AAC   | TCG  | СТС   | GAA        | DAG   | DAG     | GTT  | TCC  | TTG  | ጥጥር | CAG  | ΔΔΤ     | GAA | ΔGT  | 1050 |
| 134        |       |              |       |      |       | Glu        |       |         |      |      |      |     |      |         |     |      |      |
| 135        | 265   |              | ••••  |      |       | 270        |       | -1-     |      |      | 275  |     |      |         |     | 280  |      |
| 136        |       |              |       |      |       | -          |       |         |      |      |      |     |      |         |     |      |      |
| 137        | GTA   | GAA          | AAA   | AAC  | AAG   | AGC        | ATA   | CAA     | AGT  | TTG  | CAC  | AAT | CAG  | ATA     | TGT | AGC  | 1098 |
| 138        | Val   | Glu          | Lys   | Asn  | Lys   | Ser        | Ile   | Gln     | Ser  | Leu  | His  | Asn | Gln  | Ile     | Cys | Ser  |      |
| 139        |       |              |       |      | 285   |            |       |         |      | 290  |      |     |      |         | 295 |      |      |
| 140        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
| 141        |       |              |       |      |       | GAG        |       |         |      |      |      |     |      |         |     |      | 1146 |
| 142        | Phe   | Glu          | Ile   | Glu  | Ile   | Glu        | Arg   | Gln     | Lys  | Glu  | Met  | Leu | Arg  | Asn     | Asn | Glu  |      |
| 143        |       |              |       | 300  |       |            |       |         | 305  |      |      |     |      | 310     |     |      |      |
| 144        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |
| 145        |       |              |       |      |       | TTA        |       |         |      |      |      |     |      |         |     |      | 1194 |
| 146        | ser   | ьys          |       | ьeu  | HIS   | Leu        | GIN   | _       | vaı  | тте  | Asp  | ser |      | ата     | GIU | гÀг  |      |
| 147        |       |              | 315   |      |       |            |       | 320     |      |      |      |     | 325  |         |     |      |      |
| 148        | ama.  | 224          | ara.  | amm. | ara.  | 224        | ava   | N TO CO | aaa  | aaa  | mma. | aaa | ara  | 220     | шаа | CAC  | 1242 |
| 149<br>150 |       |              |       |      |       | AAG<br>Lys |       |         |      |      |      |     |      |         |     |      | 1242 |
| 150        | ьец   | 330          | GIU   | ьец  | ASD   | гух        | 335   | TTE     | Arg  | LI0  | FIIE | 340 | GIII | HSII    | тгЪ | GIU  |      |
| 152        |       | 330          |       |      |       |            | 333   |         |      |      |      | 340 |      |         |     |      |      |
| 142        |       |              |       |      |       |            |       |         |      |      |      |     |      |         |     |      |      |

## RAW SEQUENCE LISTING PATENT APPLICATION US/08/404,832

DATE: 04/05/95 TIME: 10:09:05

|   | IN | PUT | SET: | S3120.raw |
|---|----|-----|------|-----------|
| Δ | C  | CCC | CTC  | 12        |

|     |      |          |      |     |       |          |       |         |               |        |            |      |     | IN      | <b>IPUT</b> | SET: 531 | 20.raw |
|-----|------|----------|------|-----|-------|----------|-------|---------|---------------|--------|------------|------|-----|---------|-------------|----------|--------|
| 153 | GAA  | GCA      | GAC  | AGC | ATG   | AAG      | AGC   | AGC     | GTG           | GAG    | TCC        | CTC  | CAG | AAC     | CGC         | GTG      | 1290   |
| 154 | Glu  | Ala      | Asp  | Ser | Met   | Lys      | Ser   | Ser     | Val           | Glu    | Ser        | Leu  | Gln | Asn     | Arg         | Val      |        |
| 155 | 345  |          | _    |     |       | 350      |       |         |               |        | 355        |      |     |         | _           | 360      |        |
| 156 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 157 | ACC  | GAG      | CTG  | GAG | AGC   | GTG      | GAC   | ΔAG     | AGC           | GCG    | GGG        | CAA  | GTG | GCT     | CGG         | AAC      | 1338   |
| 158 |      |          |      |     | Ser   |          |       |         |               |        |            |      |     |         |             |          | 1550   |
|     | 1111 | GIU      | пеа  | GIU |       | Val      | АЗР   | цуз     | Ser           |        | GLY        | GIII | Val | АТО     | _           | ASII     |        |
| 159 |      |          |      |     | 365   |          |       |         |               | 370    |            |      |     |         | 375         |          |        |
| 160 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 161 |      |          |      |     | GAG   |          |       |         |               |        |            |      |     |         |             |          | 1386   |
| 162 | Thr  | Gly      | Leu  | Leu | Glu   | Ser      | Gln   | Leu     |               | Arg    | His        | Asp  | Gln | Met     | Leu         | Ser      |        |
| 163 |      |          |      | 380 |       |          |       |         | 385           |        |            |      |     | 390     |             |          |        |
| 164 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 165 | GTG  | CAC      | GAC  | ATC | CGC   | CTA      | GCC   | GAC     | ATG           | GAC    | CTG        | GGC  | TTC | CAG     | GTC         | CTG      | 1434   |
| 166 | Val  | His      | Asp  | Ile | Arg   | Leu      | Ala   | Asp     | Met           | Asp    | Leu        | Gly  | Phe | Gln     | Val         | Leu      |        |
| 167 |      |          | 395  |     | _     |          |       | 400     |               | _      |            | _    | 405 |         |             |          |        |
| 168 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 169 | GAG  | ACC      | GCC  | AGC | TAC   | ААТ      | GGA   | GTG     | CTC           | ATC    | TGG        | AAG  | ATT | CGC     | GAC         | TAC      | 1482   |
| 170 |      |          |      |     | Tyr   |          |       |         |               |        |            |      |     |         |             |          |        |
| 171 | 010  | 410      | 7.10 |     | - 1 - | ADII     | 415   | *41     | 200           |        | 115        | 420  | 110 | n. g    | YPP         | - 1 -    |        |
| 172 |      | 410      |      |     |       |          | 413   |         |               |        |            | 420  |     |         |             |          |        |
| -   | 330  | 000      | 000  | 330 | CAG   | aza      | 000   | ama     | a ma          | 000    | 330        | 3.00 | ama | шаа     | amm         | ma a     | 1520   |
| 173 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          | 1530   |
| 174 | _    | arg      | Arg  | ràz | Gln   |          | АТА   | vaı     | мет           | GIA    | _          | Thr  | Leu | ser     | Leu         | _        |        |
| 175 | 425  |          |      |     |       | 430      |       |         |               |        | 435        |      |     |         |             | 440      |        |
| 176 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 177 |      |          |      |     | TAC   |          |       |         |               |        |            |      |     |         |             |          | 1578   |
| 178 | Ser  | Gln      | Pro  | Phe | Tyr   | Thr      | Gly   | Tyr     | Phe           | Gly    | ${	t Tyr}$ | Lys  | Met | Cys     | Ala         | Arg      |        |
| 179 |      |          |      |     | 445   |          |       |         |               | 450    |            |      |     |         | 455         |          |        |
| 180 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 181 | GTC  | TAC      | CTG  | AAC | GGG   | GAC      | GGG   | ATG     | GGG           | AAG    | GGG        | ACG  | CAC | TTG     | TCG         | CTG      | 1626   |
| 182 | Val  | Tyr      | Leu  | Asn | Gly   | Asp      | Gly   | Met     | Gly           | Lys    | Gly        | Thr  | His | Leu     | Ser         | Leu      |        |
| 183 |      | -        |      | 460 | -     | -        | _     |         | 465           | -      | -          |      |     | 470     |             |          |        |
| 184 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 185 | ттт  | ጥጥጥ      | GTC  | ATC | ATG   | CGT      | GGA   | GAA     | ТАТ           | GAT    | GCC        | СТС  | СТТ | ССТ     | TGG         | CCG      | 1674   |
| 186 |      |          |      |     | Met   |          |       |         |               |        |            |      |     |         |             |          |        |
| 187 |      |          | 475  |     |       | 5        |       | 480     | -1-           | р      |            |      | 485 |         | P           |          |        |
| 188 |      |          | 1,0  |     |       |          |       | 100     |               |        |            |      | 400 |         |             |          |        |
| 189 | mmm  | 220      | CAC  | *** | GTG   | 202      | OTTO  | A THICK | CTIC          | N TO C | CATE       | CAC  | aaa | maa     | mam.        | CCA      | 1722   |
|     |      |          |      |     | Val   |          |       |         |               |        |            |      |     |         |             |          | 1/22   |
| 190 | Pile | -        | GIII | rys | vaı   | IIII     |       | Met     | Leu           | мес    | ASP        |      | GIY | Ser     | Ser         | AIG      |        |
| 191 |      | 490      |      |     |       |          | 495   |         |               |        |            | 500  |     |         |             |          |        |
| 192 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 193 |      |          |      |     | GAT   |          |       |         |               |        |            |      |     |         |             |          | 1770   |
| 194 |      | His      | Leu  | Gly | Asp   | Ala      | Phe   | Lys     | Pro           | Asp    | Pro        | Asn  | Ser | Ser     | Ser         | Phe      |        |
| 195 | 505  |          |      |     |       | 510      |       |         |               |        | 515        |      |     |         |             | 520      |        |
| 196 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 197 |      |          |      |     | GGA   |          |       |         |               |        |            |      |     |         |             |          | 1818   |
| 198 | Lys  | Lys      | Pro  | Thr | Gly   | Glu      | Met   | Asn     | Ile           | Ala    | Ser        | Gly  | Cys | Pro     | Val         | Phe      |        |
| 199 | -    | _        |      |     | 525   |          |       |         |               | 530    |            | -    | _   |         | 535         |          |        |
| 200 |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |
| 201 | GTG  | GCC      | CAA  | АСТ | GTT   | CTA      | GAA   | ААТ     | GGG           | ACA    | TAT        | ATT  | AAA | GAT     | GAT         | ACA      | 1866   |
| 202 |      |          |      |     | Val   |          |       |         |               |        |            |      |     |         |             |          |        |
| 203 |      |          |      | 540 |       |          |       |         | 545           |        | -1-        |      | -,5 | 550     |             |          |        |
| 204 |      |          |      | 240 |       |          |       |         | J- <b>I</b> J |        |            |      |     | 550     |             |          |        |
| 204 | y mm | th th th | λmm  | *** | GTC   | א וווי א | OTTO: | CATT    | λCm           | maa    | C A TT     | CMC  | ccc | CI A TO | aaa         |          | 1911   |
| 203 | WII  | 111      | WII  | MAM | GIC   | MIM      | 316   | GAI     | MC I          | 100    | GHI        | C10  |     | GAI     |             |          | 1711   |
|     |      |          |      |     |       |          |       |         |               |        |            |      |     |         |             |          |        |

## RAW SEQUENCE LISTING PATENT APPLICATION US/08/404,832

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|  |                            |                                |                                  |  |   |  | _                          |                            | _                          |   |                            |                                       |                                |  |                         | SEI:                                  | S3120.ray | v   |
|--|----------------------------|--------------------------------|----------------------------------|--|---|--|----------------------------|----------------------------|----------------------------|---|----------------------------|---------------------------------------|--------------------------------|--|-------------------------|---------------------------------------|-----------|-----|
| 206  | Ile                        | Phe                            |                                  | Lys  | Val   | Ile  | Val                        |                            |                            | Ser   | Asp                        | Leu                                   |                                | Asp  | Pro                     |                                       |           |     |
| 207  |                            |                                | 555                              |  |   |  |                            | 560.                       |                            |   |                            |                                       | 565                            |  |                         |                                       |           |     |
| 208  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 209  | TGAT                       | 'AAG'                          | rag (                            | CTGG   | GGAG  | GT G   | GATT'                      | rage/                      | A GA                       | AGGC  | AACT                       | CCT                                   | CTGG                           | GG .   | ATTTC                   | BAACC                                 | :G 19     | 971 |
| 210  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 211  | GTCT                       | GTC                            | TTC I                            | ACTG   | AGGT  | CC T   | CGCG                       | CTCA                       | G AA                       | AAGG  | ACCT                       | TGT                                   | GAGA                           | CGG .  | AGGA                    | AGCGG                                 | 3C 20     | 031 |
| 212  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 213  | AGAA                       | GGC                            | GA (                             | יפכפי  | racco   | 3G C   | GGGA                       | G A G (                    | CA                         | raca  | AGAG                       | CAC                                   | АССТО                          | AC.  | ∆сстг                   | TATT!                                 | 20 מי     | 091 |
| 214  | 110111                     | .000.                          | JOR .                            |  |   |  |                            |                            | J 011.                     |   | 10110                      | 0                                     |                                |  |                         |                                       |           | -   |
|  | 3 m 3 c                    | ı a amı                        |                                  | 72026  | amma:   |  | ama s                      |                            |                            | nmm a r   | naam                       | max                                   |                                | 1 A III                                      | 3 3 3 m                 | mmac                                  | ım 0.     | 151 |
| 215  | AIAG                       | ACT                            | AGC (                            | CACAC  | . 1 1 C   | AC I   | CIGA                       | AGAA.                      | IIA                        | IIIA.   | ICCI                       | ICA                                   | ACAA                           | MI.  | HAAI                    | ATTGC                                 | .1 21     | 131 |
| 216  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 217  | GTCA                       | GAG                            | AAG (                            | 3'T'T'T'   | l'CAT".   | rr re  | CATT.                      | III.W                      | A AG                       | ATCTA   | AGTT                       | AA'I"                                 | l'AAG(                         | 3TG (  | GAAA                    | ACATA                                 | r 22      | 211 |
| 218  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 219  | ATGC                       | TAA                            | ACA A                            | AAAG   | AAAC  | AT G   | ATTT'                      | rtct:                      | r cc                       | TAA   | ACTT                       | GAA                                   | CACC                           | AAA  | AAAA                    | CACAC                                 | !A 27     | 271 |
| 220  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 221  | CACA                       | CAC                            | ACA (                            | CGTG   | GGA.  | ra G   | CTGG                       | ACATO                      | 3 TC                       | AGCA'   | rgtt                       | AAG'                                  | raaa <i>i</i>                  | AGG .  | AGAA!                   | <b>LATT</b>                           | .'G 23    | 331 |
| 222  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 223  | TAAA                       | 'AGT                           | A                                |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       | 23        | 339 |
| 224  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 225  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 226  | 121                        | TNFO                           | ימאאר                            | TON  | FOR   | SEO  | ID I                       | VO - 2                     |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 227  | (-,                        |                                |                                  |  |   |  |                            |                            | •                          |   |                            |                                       |                                |  |                         |                                       |           |     |
| 228  |                            |                                | (1)                              | 25011  | -MCE  | CHAI   | RACTI                      | PDTC                       | PTCC                       |   |                            |                                       |                                |  |                         |                                       |           |     |
| 229  |                            |                                | ( + ) .                          |  |   |  |                            |                            |                            |   | _                          |                                       |                                |  |                         |                                       |           |     |
|  |                            |                                |                                  |  |   |  | : 56                       |                            |                            | acta  | 5                          |                                       |                                |  |                         |                                       |           |     |
| 230  |                            |                                |                                  |  | •   |  | amin                       |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 231  |                            |                                |                                  | (D)  | TOI   | SOTO   | GY: .                      | Linea                      | ar                         |   |                            |                                       |                                |  |                         |                                       |           |     |
| מכר  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 232  |                            |                                |                                  |  |   |  |                            |                            |                            |   |                            |                                       |                                |  |                         |                                       |           |     |
| 233  |                            | (:                             | ii) N                            | MOLE   | CULE  | TYP  | E: pı                      | rote                       | in                         |   |                            |                                       |                                |  |                         |                                       |           |     |
|  |                            | ( :                            | ii) M                            | MOLE   | CULE  | TYP  | E: pı                      | rote                       | in                         |   |                            |                                       |                                |  |                         |                                       |           |     |
| 233  |                            | •                              | ·                                |  |   |  | E: pi                      |                            |                            | O ID  | NO:2                       | 2:                                    |                                |  |                         |                                       |           |     |
| 233<br>234   |                            | •                              | ·                                |  |   |  | _                          |                            |                            | O ID  | NO:                        | 2:                                    |                                |  |                         |                                       |           |     |
| 233<br>234<br>235  | Met                        | ( 2                            | Ki) S                            | SEQUI  | ENCE  | DES  | CRIP                       | rion:                      | : SE                       | _   |                            |                                       | Leu                            | Gln  | Thr                     | Asn                                   |           |     |
| 233<br>234<br>235<br>236   | Met<br>1                   | ( 2                            | Ki) S                            | SEQUI  | ENCE  | DES  | CRIP                       | rion:                      | : SE                       | _   |                            |                                       | Leu                            | Gln  | Thr<br>15               | Asn                                   |           |     |
| 233<br>234<br>235<br>236<br>237  |                            | ( 2                            | Ki) S                            | SEQUI  | ENCE<br>Lys                                       | DES  | CRIP                       | rion:                      | : SE                       | Pro   |                            |                                       | Leu                            | Gln  |                         | Asn                                   |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239  | 1                          | (2<br>Glu                      | ki) S                            | SEQUI<br>Ser   | ENCE<br>Lys<br>5                                  | DES<br>Lys   | CRIPT                      | rion:<br>Asp               | ser                        | Pro<br>10   | Gly                        | Ala                                   |                                |  | 15                      |                                       |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240   |                            | (2<br>Glu                      | ki) S                            | SEQUE<br>Ser<br>Lys  | ENCE<br>Lys<br>5                                  | DES<br>Lys   | CRIPT                      | rion:<br>Asp               | : SE(<br>Ser<br>Arg        | Pro<br>10   | Gly                        | Ala                                   |                                | Pro  | 15                      |                                       |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241  | 1                          | (2<br>Glu                      | ki) S                            | SEQUI<br>Ser   | ENCE<br>Lys<br>5                                  | DES<br>Lys   | CRIPT                      | rion:<br>Asp               | ser                        | Pro<br>10   | Gly                        | Ala                                   |                                |  | 15                      |                                       |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242   | l<br>Pro                   | (z<br>Glu<br>Pro               | Ser<br>Leu                       | SEQUE<br>Ser<br>Lys<br>20                                    | Lys<br>5<br>Leu                                   | DESC<br>Lys<br>His                                   | CRIPT                      | Asp<br>Asp                 | Ser<br>Arg<br>25           | Pro<br>10<br>Ser  | Gly<br>Ala                 | Ala<br>Gly                            | Thr                            | Pro<br>30                                    | 15<br>Val               | Phe                                   |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243  | l<br>Pro                   | (z<br>Glu<br>Pro               | ser<br>Leu<br>Glu                | SEQUE<br>Ser<br>Lys<br>20                                    | Lys<br>5<br>Leu                                   | DESC<br>Lys<br>His                                   | CRIPT                      | Asp<br>Asp<br>Asp          | Ser<br>Arg<br>25           | Pro<br>10<br>Ser  | Gly<br>Ala                 | Ala<br>Gly                            | Thr<br>Lys                     | Pro<br>30                                    | 15                      | Phe                                   |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244   | l<br>Pro                   | (z<br>Glu<br>Pro               | Ser<br>Leu                       | SEQUE<br>Ser<br>Lys<br>20                                    | Lys<br>5<br>Leu                                   | DESC<br>Lys<br>His                                   | CRIPT                      | Asp<br>Asp                 | Ser<br>Arg<br>25           | Pro<br>10<br>Ser  | Gly<br>Ala                 | Ala<br>Gly                            | Thr                            | Pro<br>30                                    | 15<br>Val               | Phe                                   |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245  | l<br>Pro<br>Val            | Glu<br>Pro                     | Ser<br>Leu<br>Glu<br>35          | SEQUE<br>Ser<br>Lys<br>20<br>Gln                             | Lys<br>5<br>Leu<br>Gly                            | DESC<br>Lys<br>His                                   | Met Thr                    | Asp Asp Lys 40             | Ser Arg 25                 | Pro<br>10<br>Ser<br>Lys                                   | Gly<br>Ala<br>Phe          | Ala<br>Gly<br>Val                     | Thr<br>Lys<br>45               | Pro<br>30<br>Thr                             | 15<br>Val<br>Val        | Phe<br>Glu                            |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246   | l<br>Pro<br>Val            | Glu<br>Pro<br>Pro              | Ser<br>Leu<br>Glu<br>35          | SEQUE<br>Ser<br>Lys<br>20<br>Gln                             | Lys<br>5<br>Leu<br>Gly                            | DESC<br>Lys<br>His                                   | Met Thr Tyr                | Asp Asp Lys 40             | Ser Arg 25                 | Pro<br>10<br>Ser<br>Lys                                   | Gly<br>Ala<br>Phe          | Ala<br>Gly<br>Val<br>Leu              | Thr<br>Lys<br>45               | Pro<br>30<br>Thr                             | 15<br>Val               | Phe<br>Glu                            |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247  | l<br>Pro<br>Val            | Glu<br>Pro                     | Ser<br>Leu<br>Glu<br>35          | SEQUE<br>Ser<br>Lys<br>20<br>Gln                             | Lys<br>5<br>Leu<br>Gly                            | DESC<br>Lys<br>His                                   | Met Thr                    | Asp Asp Lys 40             | Ser Arg 25                 | Pro<br>10<br>Ser<br>Lys                                   | Gly<br>Ala<br>Phe          | Ala<br>Gly<br>Val                     | Thr<br>Lys<br>45               | Pro<br>30<br>Thr                             | 15<br>Val<br>Val        | Phe<br>Glu                            |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248   | l<br>Pro<br>Val<br>Asp     | Glu<br>Pro<br>Pro<br>Lys<br>50 | Ser<br>Leu<br>Glu<br>35          | Seque<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys                     | DESC<br>Lys<br>His<br>Gly                            | Met Thr Tyr Lys            | Asp Asp Lys 40             | Ser Arg 25 Glu             | Pro<br>10<br>Ser<br>Lys                                   | Gly<br>Ala<br>Phe<br>Val   | Ala<br>Gly<br>Val<br>Leu<br>60        | Thr<br>Lys<br>45<br>Cys        | Pro<br>30<br>Thr                             | 15<br>Val<br>Val<br>Pro | Phe<br>Glu<br>Lys                     |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249                                    | 1<br>Pro<br>Val<br>Asp     | Glu<br>Pro<br>Pro<br>Lys<br>50 | Ser<br>Leu<br>Glu<br>35          | Seque<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys                     | DESC<br>Lys<br>His<br>Gly<br>Glu                     | Met Thr Tyr Lys            | Asp Asp Lys 40             | Ser Arg 25 Glu             | Pro<br>10<br>Ser<br>Lys                                   | Gly Ala Phe Val            | Ala<br>Gly<br>Val<br>Leu<br>60        | Thr<br>Lys<br>45<br>Cys        | Pro<br>30<br>Thr                             | 15<br>Val<br>Val        | Phe<br>Glu<br>Lys<br>Leu              |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249<br>250                             | l<br>Pro<br>Val<br>Asp     | Glu<br>Pro<br>Pro<br>Lys<br>50 | Ser<br>Leu<br>Glu<br>35          | Seque<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys                     | DESC<br>Lys<br>His<br>Gly                            | Met Thr Tyr Lys            | Asp Asp Lys 40             | Ser Arg 25 Glu             | Pro<br>10<br>Ser<br>Lys                                   | Gly<br>Ala<br>Phe<br>Val   | Ala<br>Gly<br>Val<br>Leu<br>60        | Thr<br>Lys<br>45<br>Cys        | Pro<br>30<br>Thr                             | 15<br>Val<br>Val<br>Pro | Phe<br>Glu<br>Lys                     |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249                                    | 1<br>Pro<br>Val<br>Asp     | Glu<br>Pro<br>Pro<br>Lys<br>50 | Ser<br>Leu<br>Glu<br>35          | Seque<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys                     | DESC<br>Lys<br>His<br>Gly<br>Glu                     | Met Thr Tyr Lys            | Asp Asp Lys 40             | Ser Arg 25 Glu             | Pro<br>10<br>Ser<br>Lys                                   | Gly Ala Phe Val            | Ala<br>Gly<br>Val<br>Leu<br>60        | Thr<br>Lys<br>45<br>Cys        | Pro<br>30<br>Thr                             | 15<br>Val<br>Val<br>Pro | Phe<br>Glu<br>Lys<br>Leu              |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249<br>250                             | Pro Val Asp Gln 65         | Glu Pro Pro Lys 50             | Ser<br>Leu<br>Glu<br>35<br>Tyr   | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys                     | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70        | Met Thr Tyr Lys 55         | Asp Asp Lys 40 Cys         | Ser Arg 25 Glu His         | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu                     | Gly Ala Phe Val Ser 75     | Ala<br>Gly<br>Val<br>Leu<br>60<br>Cys | Thr<br>Lys<br>45<br>Cys<br>Met | Pro<br>30<br>Thr<br>Ser                      | 15<br>Val<br>Val<br>Pro | Phe<br>Glu<br>Lys<br>Leu<br>80        |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249<br>250<br>251                      | Pro Val Asp Gln 65         | Glu Pro Pro Lys 50             | Ser<br>Leu<br>Glu<br>35<br>Tyr   | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys                     | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70        | Met Thr Tyr Lys 55         | Asp Asp Lys 40 Cys         | Ser Arg 25 Glu His         | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu                     | Gly Ala Phe Val Ser 75     | Ala<br>Gly<br>Val<br>Leu<br>60<br>Cys | Thr<br>Lys<br>45<br>Cys<br>Met | Pro<br>30<br>Thr<br>Ser                      | 15<br>Val<br>Val<br>Pro | Phe<br>Glu<br>Lys<br>Leu<br>80        |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>250<br>251<br>252                      | Pro Val Asp Gln 65         | Glu Pro Pro Lys 50             | Ser<br>Leu<br>Glu<br>35<br>Tyr   | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys                      | Lys<br>5<br>Leu<br>Gly<br>Cys<br>Gly<br>Ser       | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70        | Met Thr Tyr Lys 55         | Asp Asp Lys 40 Cys         | Ser Arg 25 Glu His         | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu                     | Gly Ala Phe Val Ser 75     | Ala<br>Gly<br>Val<br>Leu<br>60<br>Cys | Thr<br>Lys<br>45<br>Cys<br>Met | Pro<br>30<br>Thr<br>Ser                      | Val Val Pro Ala         | Phe<br>Glu<br>Lys<br>Leu<br>80        |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249<br>250<br>251<br>252<br>253<br>254 | Pro Val Asp Gln 65         | Glu Pro Pro Lys 50 Thr         | Ser  Leu  Glu  35  Tyr  Glu  Ser | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys<br>Cys               | Lys<br>5<br>Leu<br>Gly<br>Cys<br>Gly<br>Ser<br>85 | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70        | Thr Tyr Lys 55 Arg         | Asp Asp Lys 40 Cys Phe     | Ser Arg 25 Glu His Cys     | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu<br>Ala<br>90        | Gly Ala Phe Val Ser 75 Cys | Ala Gly Val Leu 60 Cys                | Thr Lys 45 Cys Met             | Pro<br>30<br>Thr<br>Ser<br>Ala               | Val Val Pro Ala Ile 95  | Phe<br>Glu<br>Lys<br>Leu<br>80<br>Val |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249<br>250<br>251<br>252<br>253<br>255 | Pro Val Asp Gln 65         | Glu Pro Pro Lys 50 Thr         | Ser  Leu  Glu  35  Tyr  Glu  Ser | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys<br>Cys<br>Ser        | Lys<br>5<br>Leu<br>Gly<br>Cys<br>Gly<br>Ser<br>85 | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70        | Thr Tyr Lys 55 Arg         | Asp Asp Lys 40 Cys Phe     | Ser Arg 25 Glu His Cys Thr | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu<br>Ala<br>90        | Gly Ala Phe Val Ser 75 Cys | Ala Gly Val Leu 60 Cys                | Thr Lys 45 Cys Met             | Pro<br>30<br>Thr<br>Ser<br>Ala<br>Ser        | Val Val Pro Ala         | Phe<br>Glu<br>Lys<br>Leu<br>80<br>Val |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>251<br>251<br>252<br>253<br>256        | Pro Val Asp Gln 65         | Glu Pro Pro Lys 50 Thr         | Ser  Leu  Glu  35  Tyr  Glu  Ser | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys<br>Cys               | Lys<br>5<br>Leu<br>Gly<br>Cys<br>Gly<br>Ser<br>85 | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70        | Thr Tyr Lys 55 Arg         | Asp Asp Lys 40 Cys Phe     | Ser Arg 25 Glu His Cys     | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu<br>Ala<br>90        | Gly Ala Phe Val Ser 75 Cys | Ala Gly Val Leu 60 Cys                | Thr Lys 45 Cys Met             | Pro<br>30<br>Thr<br>Ser<br>Ala               | Val Val Pro Ala Ile 95  | Phe<br>Glu<br>Lys<br>Leu<br>80<br>Val |           |     |
| 233<br>234<br>235<br>236<br>237<br>238<br>239<br>240<br>241<br>242<br>243<br>244<br>245<br>246<br>247<br>248<br>249<br>250<br>251<br>252<br>253<br>255 | Pro Val Asp Gln 65 Leu Lys | Glu Pro Pro Lys 50 Thr Ser     | Ser Leu Glu 35 Tyr Glu Ser Lys   | SEQUE<br>Ser<br>Lys<br>20<br>Gln<br>Lys<br>Cys<br>Ser<br>Val | Lys 5 Leu Gly Cys Gly Ser 85 Phe                  | DESC<br>Lys<br>His<br>Gly<br>Glu<br>His<br>70<br>Pro | Thr Tyr Lys 55 Arg Lys Asp | Asp Asp Lys 40 Cys Phe Cys | Ser Arg 25 Glu His Cys Thr | Pro<br>10<br>Ser<br>Lys<br>Leu<br>Glu<br>Ala<br>90<br>Cys | Gly Ala Phe Val Ser 75 Cys | Ala Gly Val Leu 60 Cys Gln Arg        | Thr Lys 45 Cys Met Glu Glu     | Pro<br>30<br>Thr<br>Ser<br>Ala<br>Ser<br>Ile | Val Val Pro Ala Ile 95  | Phe<br>Glu<br>Lys<br>Leu<br>80<br>Val |           |     |

# SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/08/404,832

DATE: 04/05/95 TIME: 10:09:15

INPUT SET: S3120.raw

Line

Error

Original Text

27

Wrong application Serial Number

(A) APPLICATION NUMBER: US